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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/722,754	11/26/2003	Ralph I. Larson	HTI-019BUS	7292
22494	7590	07/19/2006	EXAMINER FLANIGAN, ALLEN J	
DALY, CROWLEY, MOFFORD & DURKEE, LLP SUITE 301A 354A TURNPIKE STREET CANTON, MA 02021-2714			ART UNIT 3753	
PAPER NUMBER				

DATE MAILED: 07/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/722,754	<b>Applicant(s)</b> LARSON, RALPH I.	
	<b>Examiner</b> Allen J. Flanigan	<b>Art Unit</b> 3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 44-55 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 46, 47, 49-51 and 53-55 is/are rejected.
- 7) ☒ Claim(s) 44, 45, 48 and 52 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____.  |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date ____.  | 6) <input type="checkbox"/> Other: ____.                                    |

Prosecution is reopened for the purpose of making a new rejection of the claims. The amendment filed on 6/1/2006 under rule 116 has been entered as a matter of right under rule 115.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

A rejection based on double patenting of the "same invention" type finds its support in the language of 35 U.S.C. 101 which states that "whoever invents or discovers any new and useful process ... may obtain a patent therefor ..." (Emphasis added). Thus, the term "same invention," in this context, means an invention drawn to identical subject matter. See *Miller v. Eagle Mfg. Co.*, 151 U.S. 186 (1894); *In re Ockert*, 245 F.2d 467, 114 USPQ 330 (CCPA 1957); and *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970).

A statutory type (35 U.S.C. 101) double patenting rejection can be overcome by canceling or amending the conflicting claims so they are no longer coextensive in scope. The filing of a terminal disclaimer cannot overcome a double patenting rejection based upon 35 U.S.C. 101.

Claim 53 is rejected under 35 U.S.C. 101 as claiming the same invention as that of claim 14 of prior U.S. Patent No. 6,827,130. This is a double patenting rejection.

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re*

Art Unit: 3753

*Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 46, 49-51, 54, and 55 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 12 and 13 of U.S. Patent No. 6,827,130 in view of Bamford et al. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 54 and 55 differ only in the omission of the claimed "slug" from the patent claims. As Bamford et al. shows, the use of a central post or "slug" around which the corrugated sheet is wrapped is known in the art, and to use such a conductive post member in the claimed folded fin assembly would have been obvious to one of ordinary skill in the art.

As for claims 46, 49, 50, and 51, the Examiner takes official notice of the well known nature of the use of fans/blowers to provide forced convection cooling in heat sinks (see Bamford et al.) and also of the notoriously well known nature in the art of the use of metals such as copper and aluminum to form heat sink components such as bases and fins. Further, the Examiner takes official notice of the notoriously well known nature of using thermal greases and other known interface materials such as Kapton®, Isostrate®, etc.

Art Unit: 3753

between a component and a heat sink base, and the use of such notoriously well known materials would have been obvious to one of ordinary skill in the art. These are all old and well known expedients in the heat sink art. See ***In re Malcolm*, 54 U.S.P.Q. 235.**

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 46, 47, and 53-55 are rejected under 35 U.S.C. 102(e) as being anticipated by Bamford et al.

Bamford et al. disclose a folded fin surrounding a central core readable on the claimed slug. Regarding the claimed apertures, note apertures 29 of Bamford et al.

The recitation in claim 53 that the “slug is disposed in a generally nonvertical position” carries no weight since it concerns the intended use of the claimed heat sink. The recitation “vertical” is meaningless since there is no frame of reference to give it meaning (vertical relative to what? A heat sink mounted to a component is not being claimed, but a heat sink per se). Similar

recitations in claims 54 and 55 (different heights) also carry no weight since there is no frame of reference for these recitations to give them weight.

Claims 49-51 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bamford et al.

See the comments made on the previous page, where the Examiner took official notice of facts well known in the art, concerning old and well known expedients (the use of common metals such as copper and aluminum to form heat sink components, and the use of thermal interface materials). Bamford et al. do not specify any materials for their thermally conductive folded sheet, rod, and base plate. Presumably, any well-known material in the art would suffice; thus, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to use such well known materials to form the components of Bamford et al.'s heat sink. Further, it would have been obvious to one of ordinary skill in the art at the time the instant invention was made to use a thermal grease or other conventional interface material between the base plate of Bamford et al. and the component it is to be mounted on.

Claims 44, 45, 48 and 52 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

O'Sullivan et al. is cited as an alternative to Bamford et al. The remaining references show finned heat sinks with angled or tilted mounting surfaces or fins.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Allen J. Flanigan whose telephone number is (571) 272-4910. The examiner can normally be reached on M-F 9:00-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Eric Keasel can be reached on (571) 272-4929. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Application/Control Number: 10/722,754

Page 7

Art Unit: 3753

A handwritten signature in black ink, reading "allen J. Flanigan". The signature is written in a cursive, flowing style with a large, stylized "F".

Allen J. Flanigan  
Primary Examiner  
Art Unit 3753

AJF